965,862

PATENT SPECIFICATION

DRAWINGS ATTACHED

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COMPLETE SPECIFICATION

Improvements in or relating to Brake Levers for Bicycles or Like Vehicles

We, MANUFACTURE ARVERNOISE DE FREINS ET ACCESSOIRES POUR CYCLES SOCIETE ANONYME, a French body corporate, of 25, rue D'Estaing—Clermon-Ferrand (Puy-de-Dome, France), do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

This invention relates to brake levers for vehicles such as bicycles, tandems, power-assisted bicycles, autocycles, motor bicycles and scooters.

It is known for the brake levers of such vehicles to be punched and stamped from sheet metal or to be made of forged metal. Such brake levers are usually shaped in a manner which assists the gripping thereof for the operation of braking.

According to the present invention there is provided a brake lever for a vehicle such as a bicycle, tandem, power assisted bicycle, autocycle, motor bicycle or scooter, the lever comprising a layer of synthetic plastics material moulded onto a metal core forming the skeleton of the brake lever whereby the metal core is encased in a coating of said material.

The present invention is characterised by the use of synthetic plastics materials as the moulding material in which the core is encased. Particularly suitable plastics materials are those having a base of thermoplastic resins, acetatal formaldehyde, of the type known under the Registered Trade Mark "Delrin" without excluding the similar products which have the same features and qualities, in combination with a metal core of appropriate cross-section, shape and configuration adapted to the various types of hand-operated brake levers used for bicycles, tandems, power-assisted bicycles, autocycles, motor bicycles or scooters.

For a better understanding of the invention and to show how the same may be carried into effect reference will now be made, by way of example to the accompanying drawing in which:

Figure 1 is a side view, partially in section, of a brake lever having a covering of synthetic plastic material,

Figure 2 is a plan view partially in section, of the brake lever shown in Figure 1,

Figure 3, is a cross-sectional view, to an enlarged scale, taken along the line *a—b* of Figure 1,

Figure 4 is a cross-sectional view, to an enlarged scale, taken along the line *c—d* of Figure 1,

Figure 5 is a cross-sectional view, to an enlarged scale, taken along the line *e—f* of Figure 1,

Figure 6 is a cross-sectional view, to an enlarged scale, taken along the line *g—h* of Figure 1.

The brake lever described and illustrated is intended as a bicycle brake lever.

Referring to Figure 1 of the drawing there is shown a brake lever having a metal core 1 of semi-hard steel which is, for example, about 3 mm. in thickness. The shape of the lever, in plan view, tapers towards the end at which it pivots and is slightly bent-over at the portion 1^1.

This metal core is of uniform thickness and its shape corresponds to the shape of brake lever which is desired. The metal core also comprises holes at 2 so as to be mounted for free pivoting movement on the supporting member generally fixed to the handle-bars of the bicycle, and at 3 for the passage of the brake cable, the end of which is retained by a welded head.

The core 1 thus constructed is encased, by moulding, in a coating of synthetic plastics material 4, more particularly a synthetic plastics material such as is known as "Delrin". This covering 4 is of appropriate and varying

[*Price 4s. 6d.*]

thickness and permits of variations in the shape of cross-section, for example as illustrated by the different views taken in section at different places (Figures 3, 4, 5 and 6), with the sole object of giving the brake lever the necessary surface for good contact with the hand and for accepting the pressure exerted by the hand during application of the brake.

It is easy to appreciate the advantage of this construction, which gives the brake lever a striking appearance whilst enabling it to fulfil the conditions required by the forces resulting from repeated braking operations. Furthermore, this construction prevents any rusting. Furthermore, the appropriate colouring of the plastic material makes it possible to harmonise with the colouring of the bicycle on which the illustrated brake lever is to be used.

WHAT WE CLAIM IS:—

1. A brake lever for a vehicle such as a bicycle, tandem, power-assisted bicycle, autocycle, motor bicycle or scooter, the lever comprising a layer of synthetic plastics material moulded onto a metal core forming the skeleton of the brake lever wehereby the metal core is encased in a coating of said material.

2. A brake lever for a vehicle such as a bicycle, tandem, power-assisted bicycle, autocycle, motor bicycle or scooter, the lever being substantially as hereinbefore described with reference to the accompanying drawing.

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Chancery Lane, London W.C.2,
Agents for the Applicants.

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1 SHEET *This drawing is a reproduction of the Original on a reduced scale*

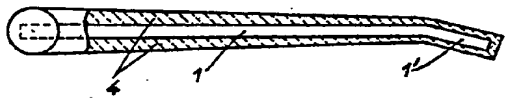


Fig.2

Fig.1

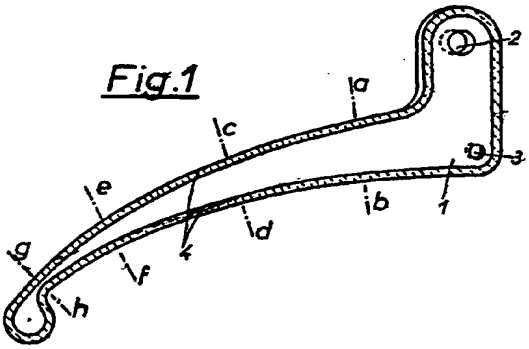
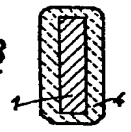


Fig.3



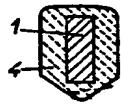


Fig.4

Fig.5

Fig.6